

**Notice of Allowability****Application No.**

09/508,095

**Examiner**

Chih-Min Kam

**Applicant(s)**

ZUCHT ET AL.

**Art Unit**

1653

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/18/04.
2. ☒ The allowed claim(s) is/are 30-33,36,37,40,41,44 and 45.
3. ☒ The drawings filed on 3/16/2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☒ to Paper No./Mail Date 1/28/02.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>2004-0917;20040913</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____  |

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An **Examiner's Amendment** to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William Player on September 17, 2004.

**Examiner's Amendments to the Specification:**

Please insert the following paragraph at page 1 after the title:

The present application is a 371 of PCT/EP98/05899, filed September 16, 1998, which claims the priority of German Application No. 19740604.1, filed September 16, 1997, and German Application No. 19805385.1, filed February 11, 1998.

Please add the following sentence before the amino acid sequences at page 3, line 6:

Preferably, peptides are used which have the following amino acid sequences:

**Examiner's Amendments to the Claims:**

Claims 30, 36, 40 and 41 have been amended as follows:

30. (Currently amended) A pure peptide having bifidogenic properties, and wherein the peptide is [-] an amino acid sequence selected from the group consisting of:

- a) [R<sub>1</sub>-]EVAARARVVW[-R<sub>2</sub>] (SEQ ID NO: 8),
- b) [R<sub>1</sub>-]ARRARVVWAAVG[-R<sub>2</sub>] (SEQ ID NO: 22),
- c) [R<sub>1</sub>-]ARRARVVWCAVG[-R<sub>2</sub>] (SEQ ID NO: 14), and  
[R<sub>3</sub>-]C<sup>|</sup>IAL[-R<sub>4</sub>] (SEQ ID NO: 15)
- d) [R<sub>1</sub>-]ARRARVVWCAVGE[-R<sub>2</sub>] (SEQ ID NO: 16)[,]  
[R<sub>3</sub>-]C<sup>|</sup>IAL[-R<sub>4</sub>] (SEQ ID NO: 15).

[wherein

R<sub>1</sub>, R<sub>2</sub> independently represent H or a peptide containing up to 100 amino acids; and R<sub>3</sub>, R<sub>4</sub> independently represent OH, NH<sub>2</sub> or a peptide containing up to 100 amino acids;

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- the amino acid sequence N-modified by amidation, acetylation, sulfation, phosphorylation, glycosylation, or oxidation; or
- a fusion protein, thereof, obtained by chemical bonding.]

36. (Currently amended) A pure peptide having bifidogenic properties and selected from the group consisting of SEQ ID NO:14 and SEQ ID NO:16.

40. (Currently amended) A pure peptide having bifidogenic properties, and wherein the peptide is

[a)] an amino acid sequence selected from the group consisting of:

[R<sub>1</sub>-]EVAARARVVW[-R<sub>2</sub>] (SEQ ID NO: 8),

[R<sub>1</sub>-]ARRARVVWCAVG[-R<sub>2</sub>] (SEQ ID NO: 14),

[R<sub>3</sub>-]CIAL[-R<sub>4</sub>] (SEQ ID NO: 15)

[R<sub>1</sub>-]ARRARVVWCAVGE[-R<sub>2</sub>] (SEQ ID NO: 16),

[R<sub>3</sub>-]CIAL[-R<sub>4</sub>] (SEQ ID NO: 15)

[R<sub>1</sub>]GRRRSVQWCAVSQPEATKCFQWQRNMRKVRGPPVSCIKRDSPIQCIQ  
A[-R<sub>2</sub>]

(SEQ ID NO: 19),

[R<sub>1</sub>-]ARRARVVWAAVG[-R<sub>2</sub>] (SEQ ID NO: 22), and

[wherein

R<sub>1</sub>, R<sub>2</sub> independently represent NH<sub>2</sub>, an amino acid, or a peptide containing up to 100 amino acids; and

R<sub>3</sub>, R<sub>4</sub> independently represent COOH, CONH<sub>2</sub>, an amino acid, or a peptide containing up to 100 amino acids, or]

[R<sub>1</sub>]YQRRPAIAINNPYVPRYYANPAVVRPHAQIPQRQYLPNSHPPTVVRR  
PNLHPSF[-R<sub>2</sub>] (SEQ ID NO: 17)[,].

[wherein

R<sub>1</sub>, R<sub>2</sub> independently represent H, or a peptide containing up to 100 amino acids excluding amino acid sequence 1-62 of human κ-casein, and

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R<sub>3</sub>, R<sub>4</sub> independently represent OH, NH<sub>2</sub>, or a peptide containing up to 100 amino acids excluding amino acid sequence 1-62 of human κ-casein;  
or

b) the amino acid sequence N-modified by amidation, acetylation, sulfation, phosphorylation, glycosylation, or oxidation.]

41. (Currently amended) A pure peptide having bifidogenic properties, and wherein the peptide is [-] an amino acid sequence selected from the group consisting of:

- a) EVAARARVVW (SEQ ID NO: 8),
- b) ARRARVVWCAVG (SEQ ID NO: 14),
- c) ARRARVVWAAVG (SEQ ID NO: 22), [or] and
- d) [R<sub>1</sub>-]ARRARVVWCAVG[-R<sub>2</sub>] (SEQ ID NO: 14)[,]  
[R<sub>3</sub>-]<sup>1</sup>CIAL[-R<sub>4</sub>] (SEQ ID NO: 15).

[wherein

R<sub>1</sub>, R<sub>2</sub> independently represent H or a peptide containing up to 100 amino acids; and

R<sub>3</sub>, R<sub>4</sub> independently represent OH, NH<sub>2</sub> or a peptide containing up to 100 amino acids; or

-the amino acid sequence N-modified by amidation, acetylation, sulfation, phosphorylation, glycosylation, or oxidation.]

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Min Kam whose telephone number is (571) 272-0948. The examiner can normally be reached on 8.00-4:30, Mon-Fri.

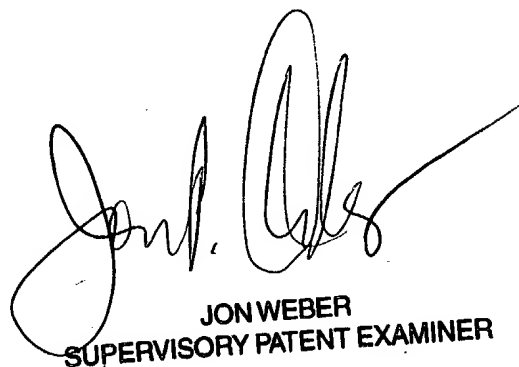
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon Weber can be reached at 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chih-Min Kam, Ph. D. *CMK*  
Patent Examiner

CMK  
September 17, 2004



JON WEBER  
SUPERVISORY PATENT EXAMINER